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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/421,846	10/20/1999	JEAN-MARC ANDREOLI	R/97005Q	4669

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OLFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

BASHORE, WILLIAM L

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 07/29/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/421,846

Applicant(s)

ANDREOLI ET AL.

Examiner

William L. Bashore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 May 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to communications: Request for Reconsideration (hereinafter the Request) filed 5/16/2003, to the original application filed 10/20/1999, with a foreign priority filing date of 4/23/1997. IDS filed 10/19/2000.
2. The objection to the specification as failing to provide proper antecedent basis for the claimed subject matter has been withdrawn in view of the Request.
3. The rejection of claims 1-16 under 35 U.S.C. 112, first paragraph as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, has been withdrawn in view of the Request.
4. Claims 1-5, 8, 13-16 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233, and Wilson.
5. Claims 6-7 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233, Wilson, and Karnik.
6. Claims 9-12 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233, Wilson, and Rubinstein '897.
7. Claims 1-16 are pending. Claims 1, 13 are independent claims.

***Claim Rejections - 35 USC § 103***

**8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**9. Claims 1-5, 8, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein (hereinafter Rubinstein '233), U.S. Patent No. 5,794, 233 issued August 1998, in view of Wilson et al. (hereinafter Wilson), U.S. Patent No. 5,963,938 issued October 1999.**

**In regard to independent claim 1, Rubinstein '233 teaches:**

Obtaining document constraint descriptors via logical combinations of keywords searchable in documents (Rubinstein '233 Abstract, Figure 2 item 250; compare with claim 1 "*A method for obtaining document constraint descriptors....the method comprising*").

Attribute values as disclosed by relevance codes associated with keywords, said codes ranking the importance of each keyword, with said keywords used in forming logical relation queries for searching documents (Rubinstein '233 Figure 2 item 206, 208, 250, column 3 lines 34-44, column 4 lines 4-10; compare with claim 1 "*receiving ....attribute -value relations that can apply to documents*").

Obtaining logical relations via inclusion of keywords into logic panes to produce logically joined expressions (Rubinstein '233 Figure 2 item 242, 246, column 4 lines 17-30; compare with claim 1 "*using....to obtain logical relations equivalent to the attribute-value relations*").

Using said logically joined expressions to obtain a displayed constraint descriptor set as applied for document searching (Rubinstein '233 Figure 2 item 250, column 4 lines 49-56; compare with claim 1

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*“using the logical relations to obtain a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations.”).*

The limitation of user signals would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Rubinstein '233, because Rubinstein '233 teaches keyword selection using “drag and drop” (Rubinstein '233 column 4 lines 10-16), as well as input fields for entering data (Rubinstein '233 Figure 2 items 215, 250), which suggests user signals, providing Rubinstein '233 the capability and advantage of user interactivity (compare with claim 1 “*user signals*”).

Rubinstein'233 teaches a query input indicative of a logical relation and a feature (Rubinstein'233 Figure 2 item 250; compare with claim 1 “*a feature*”). Rubinstein'233 does not specifically teach a sort. However, Wilson teaches selection of arguments, operations, and relations, said logical function may be sorting, or other operation (Wilson column 3 lines 45-55; compare with claim 1 “*one of a sort*”). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Wilson to Rubinstein'233, providing Rubinstein'233 the benefit of incorporating sorts for convenient arrangement of related/ranked results.

Rubinstein'233 does not specifically teach obtaining descriptors and logical relations without requiring user intervention. However, Wilson teaches a query interface encompassing Boolean operators for relating logical operations. Subsequent to user signals (a user changing an operator), Wilson automatically (without user intervention) makes necessary changes and divisions in Boolean groupings within relations, resulting in proper constraints (Wilson column 7 lines 12-21, column 12 lines 34-48; compare with claim 1 “*without requiring user intervention*”). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Wilson to Rubinstein.233, providing Rubinstein'233 the benefit of automatic modification of relations to match user changes, which releases the burden of modification from the user.

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**In regard to dependent claim 2**, Rubinstein '233 teaches a cursor control device, as well as a mouse and keyboard for a user to use in order to create logical relations (Rubinstein '233 Figure 4 item 406, column 7 lines 55-60; compare with claim 2).

**In regard to dependent claims 3, 4, 5**, Rubinstein '233 teaches a computer with a cursor control device, as well as a mouse and keyboard for a user to use in order to create logical relations (Rubinstein '233 Figure Figure 4 item 406, column 7 lines 55-60; compare with claims 3, 4, 5).

**In regard to dependent claim 8**, Rubinstein '233 teaches presenting a graphical user interface image allowing a user to create a logical query, said image including presentation of a document constraint descriptor (Rubinstein '233 Figure 2 item 200, 250; compare with claim 8). In addition, Rubinstein '233 teaches a computer with RAM memory for storing data (Rubinstein '233 column 7 lines 49-53).

**In regard to independent claim 13**, Rubinstein '233 teaches:

Obtaining document constraint descriptors via logical combinations of keywords searchable in documents (Rubinstein '233 Abstract, Figure 2 item 250; compare with claim 13 "*A machine for obtaining document constraint descriptors....the machine comprising*").

A processor, and a graphical user interface (Rubinstein '233 column 7 lines 41-48, Figure 2,3; compare with claim 13 "*a processor; and user interface circuitry for providing user signals to the processor*").

Attribute values as disclosed by relevance codes associated with keywords, said codes ranking the importance of each keyword, with said keywords used in forming logical relation queries for searching

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documents (Rubinstein '233 Figure 2 item 206, 208, 250, column 3 lines 34-44, column 4 lines 4-10; compare with claim 13 *"receiving ....attribute -value relations that can apply to documents"*).

Obtaining logical relations via inclusion of keywords into logic panes to produce logically joined expressions (Rubinstein '233 Figure 2 item 242, 246, column 4 lines 17-30; compare with claim 13 *"using.... logical relations equivalent to the attribute-value relations"*).

Using said logically joined expressions to obtain a displayed constraint descriptor set as applied for document searching (Rubinstein '233 Figure 2 item 250, column 4 lines 49-56; compare with claim 13 *"using the logical relations.... a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations."*).

Rubinstein'233 teaches a query input indicative of a logical relation and a feature (Rubinstein'233 Figure 2 item 250; compare with claim 13 *"a feature"*). Rubinstein'233 does not specifically teach a sort. However, Wilson teaches selection of arguments, operations, and relations, said logical function may be sorting, or other operation (Wilson column 3 lines 45-55; compare with claim 13 *"one of a sort"*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Wilson to Rubinstein'233, providing Rubinstein'233 the benefit of incorporating sorts for convenient arrangement of related/ranked results.

The limitation of user signals would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Rubinstein '233, because Rubinstein '233 teaches keyword selection using "drag and drop" (Rubinstein '233 column 4 lines 10-16), as well as input fields for entering data (Rubinstein '233 Figure 2 items 215, 250), clearly suggest user signals, providing Rubinstein '233 the capability and advantage of user interactivity (compare with claim 13 *"user signals"*).

Rubinstein'233 does not specifically teach obtaining descriptors and logical relations without requiring user intervention. However, Wilson teaches a query interface encompassing Boolean operators for relating logical operations. Subsequent to user signals (a user changing an operator), Wilson

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automatically (without user intervention) makes necessary changes and divisions in Boolean groupings within relations, resulting in proper constraints (Wilson column 7 lines 12-21, column 12 lines 34-48; compare with claim 13 "*without requiring user intervention*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Wilson to Rubinstein.233, providing Rubinstein'233 the benefit of automatic modification of relations to match user changes, which releases the burden of modification from the user.

**In regard to dependent claim 14**, Rubinstein '233 teaches a general purpose microcomputer (Rubinstein '233 column 7 lines 41-43; compare with claim 14).

**In regard to dependent claims 15, 16**, Rubinstein '233 teaches creation of a logical relation query, resulting in a subset of returned documents (Rubinstein Abstract, column 5 lines 54-61; compare with claim 15

Rubinstein '233 teaches presenting a graphical user interface image allowing a user to create a logical query, said image including presentation of a document constraint descriptor, said image also including a document file with a displayed portion (Rubinstein '233 Figure 2 item 200, 221, 250, 270; compare with claim 16).

10. **Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233, and Wilson as applied to claim 1 above, and further in view of Karnik, U.S. Patent No. 5,404,294 issued April 1995.**

**In regard to dependent claims 6-7**, Rubinstein '233 does not specifically teach input of a medium (i.e. paper form) via scanner, said medium containing printed values filled in by a user, wherein



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said values are subsequently read and analyzed. However, Karnik teaches a human readable pre-printed IRS form with values filled in by a user. The form is scanned, the values are read, and a mathematical formula is applied to certain inputted values (Karnik Figure 5, column 1 lines 53-57, 64-67, column 3 lines 60-64, column 6 lines 8-17; compare with claims 6-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Karnik to Rubinstein '233, providing Rubinstein '233 the capability of querying data from inputted IRS forms for statistical purposes.

**11. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233, and Wilson as applied to claim 1 above, and further in view of Rubinstein (hereinafter Rubinstein '897), U.S. Patent No. 5,721,897 issued February 1998.**

**In regard to dependent claim 9,** Rubinstein '233 does not specifically teach a network. However, Rubinstein '897 teaches creating logical relations utilizing the Internet, which is indicative of a network (Rubinstein '897 column 12 lines 40-47; compare with claim 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Rubinstein '897 to Rubinstein '233, providing Rubinstein '233 the capability of gathering data and communication with a plurality of users during a session.

**In regard to dependent claims 10-12,** Rubinstein '233 teaches presenting a graphical user interface image allowing a user to create a logical query, said image including presentation of a document constraint descriptor, said image including document references, portions of are displayed. Rubinstein '233 also teaches a printer (Rubinstein '233 Figure 2 item 200, 221,250, 270, column 8 lines 1-3; compare with claims 10-12).

***Response to Arguments***

12. Applicant's arguments filed 5/16/2003 have been fully and carefully considered but they are not persuasive.

It is respectfully noted that Applicant's arguments from page 1, to top of page 10 of the Request regarding the examiner's objection and rejection under 35 U.S.C. 112, first paragraph, are currently moot (see paragraph 2, 3 above).

Applicant argues on page 12 of the Request that the cited portions of Rubinstein '233 do not teach the limitation of "*obtaining document constraint descriptors based on user signals*". In additional support of the instant rejections, the examiner respectfully notes that Rubinstein '233 (Abstract) teaches a method of identifying target documents via the creation of a query expression (using initial user assistance), said expression can include (logical) operands. Rubinstein '233 Figure 2 item 250 is a query window which, in addition to accepting typed expressions, can also display expression components resulting from keywords selected from menus (see Rubinstein '233 Figure 2 items 205, 242, 246, column 4 lines 49-51). In either case, "user signals" are (at least initially) generated via keyboard or pointing device selecting various keywords (Rubinstein '233 column 7 lines 57-62). The expression within Rubinstein '233 Figure 2 item 250 (i.e. "*aphaxad two years*", "*firmament heaven*", and "*fish of sea*") can be interpreted as document constraint descriptors, since the resulting target document set is (hopefully) constrained by the descriptive subject descriptors of the query.

Applicant argues on page 13 of the Request that the cited portions of Rubinstein '233 do not teach receiving user signals indicating a set of attribute value-relations that can apply to documents. The examiner respectfully notes that Rubinstein '233 Figure 2 items 205, 206, teaches relevance codes associated with keywords, said codes ranking the importance of each keyword, with said keywords used in forming logical relation queries for searching documents. Since said relevance codes indicates

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importance of a phrase relative to other keyword phrases in a document, the user selectable keywords indexed via codes can be fairly interpreted as “attribute value relations”, helping in the user selection process (user signals) (see also Rubinstein ‘233 column 4 lines 8-16).

Applicant argues on pages 13 (bottom) to page 14 of the Request that the cited portions of Rubinstein ‘233 do not teach “*using....equivalent to the attribute value relations*” (limitation (B) of claim 1). The examiner respectfully notes that in additional support of the instant rejections, Rubinstein ‘233 teaching of Figure 2 item 250 contains an expression comprising elements selected from items 205-206, 242, and 246. Since the logical operands “AND” and “BUT NOT” are added by the system to the query, said query can be fairly interpreted as a “logical relation”. Since window 206 also comprises relevance codes (as explained above), the resulting logical relation contains elements equivalent to what is selected from said window.

Applicant argues on page 14 of the Request that the cited portions of Rubinstein ‘233 do not teach Applicant’s limitation (C) of claim 1. The examiner respectfully notes that the resulting expression in Rubinstein ‘233 Figure 2 item 250, can be the result of user selection of various keywords available in Figure 2.

Applicant argues on page 14 (at bottom) of the Request that claims 1 and 13 are not reciting a conventional sorting process. Although Applicant’s disclosure describes a definition of “sort”, nevertheless, without further claimed clarification, Applicant’s claimed “sort” can be interpreted as disclosed by the Wilson reference (the examiner uses the broadest possible interpretation within the scope of the relevant art). Applying Wilson to Rubinstein’233, provides Rubinstein’233 the benefit of incorporating sorts for convenient arrangement of related/ranked results.

Applicant argues on page 15 (at bottom) of the Request that it is unclear what automating a particular decision step in a Boolean operation has to do with the overall process of using the user signals, without user intervention, to obtain....equivalent to the logical relations. The examiner respectfully notes

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that Wilson is used to teach a query interface encompassing Boolean operators for relating logical operations. Subsequent to user signals (a user changing an operator), Wilson automatically (without user intervention) makes necessary changes and divisions in Boolean groupings within relations, resulting in proper constraints. This is relevant to Rubinstein'233, since a user can make editing changes which can alter various expressions, Wilson adds automatic regrouping of relations so as to match user editing (the regrouping accomplished without user intervention), therefore, not requiring manual regrouping by a user.

Applicant argues on page 16 of the Request that Karnik does not teach the claimed limitations. The examiner respectfully notes that Karnik is used for teaching input of a medium (i.e. paper form) via scanner, said medium containing printed values filled in by a user, wherein said values are subsequently read and analyzed. Karnik teaches a human readable pre-printed IRS form (a medium associated with scanners as is defined in the relevant art) with values filled in by a user. The form is scanned, the values are read, and a mathematical formula is applied to certain inputted values (Karnik Figure 5, column 1 lines 53-57, 64-67, column 3 lines 60-64, column 6 lines 8-17; compare with claims 6-7), therefore providing Rubinstein '233 the capability of querying data from a form for statistical purposes.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bashore whose telephone number is (703) 308-5807. The examiner can normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild, can be reached on (703) 305-9792.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

15. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
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or faxed to:

(703) 746-7239 (for formal communications intended for entry)

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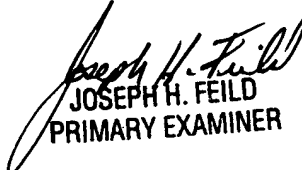
(703) 746-7240 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

or:

(703) 746-7238 (for after-final communications)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Fourth Floor (Receptionist).

William L. Bashore  
July 26, 2003

  
JOSEPH H. FEILD  
PRIMARY EXAMINER